Spring 4-12-2016

Daniel Libeskind's Three Lessons in Architecture

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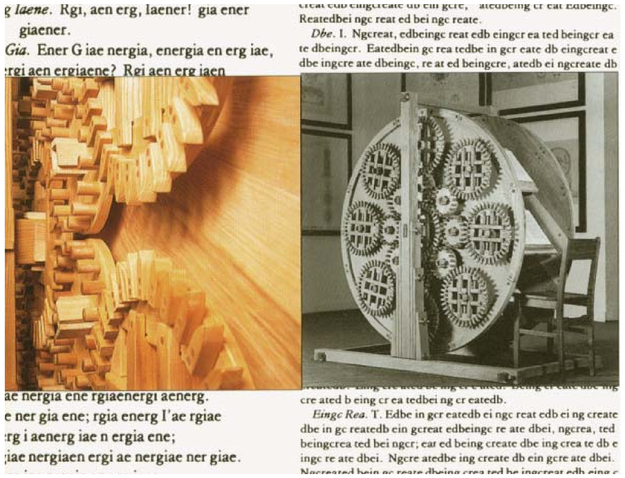
01 DOCUMENTATION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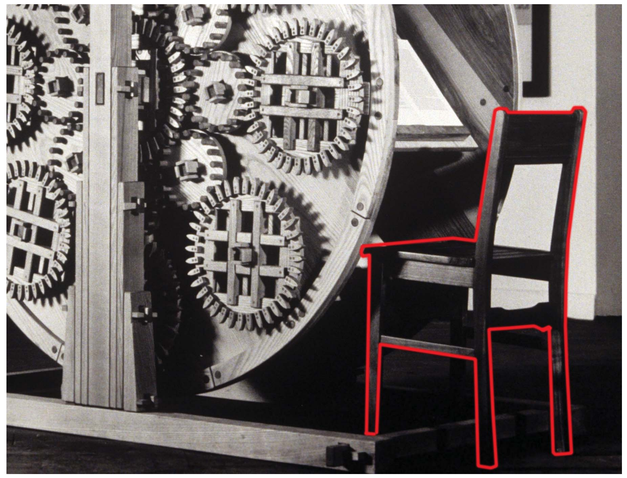
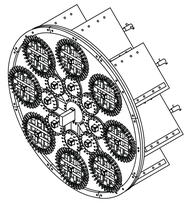
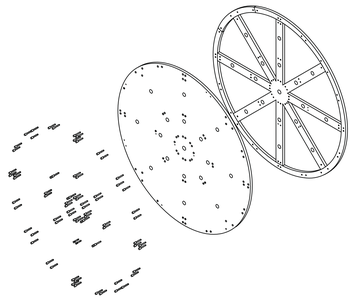
02 CROSS REFERENCE

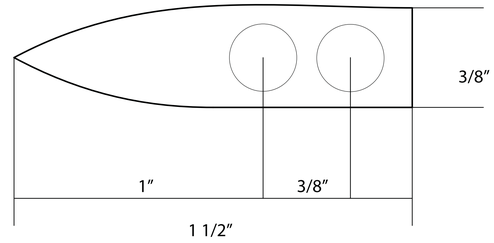


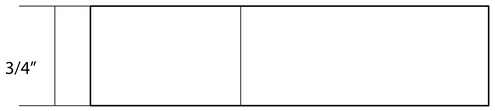
03 SCALE





04 DIMENSIONING





00 HISTORICAL RECONSTRUCTION

01 Student: **CHARLES WEAK**
02 Faculty Advisor: **PETER OLSHAVSKY**

00BRIEF

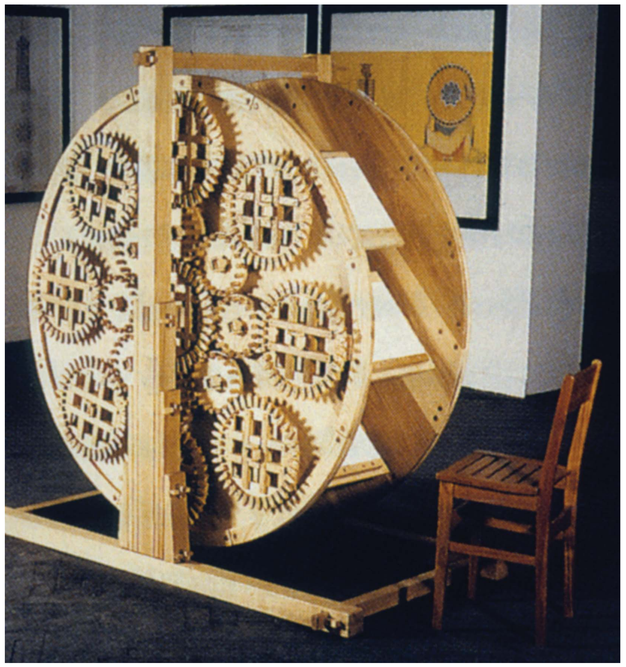
IN 1985, STUDENT'S AT CRANBROOK UNIVERSITY CREATED THREE ARCHITECTURAL MACHINES FOR THE VENICE BIENNALE. THE THREE MACHINES WERE LOST IN A FIRE IN VENICE. THE ONLY REMNANTS OF THE MACHINES THAT ARE LEFT ARE PICTURES FROM THE BIENNALE. THIS PROJECT FOCUSED ON THE READING MACHINE, ONE OF THE THREE MACHINES THAT WAS DESTROYED. IN AN ATTEMPT TO BETTER UNDERSTAND THESE MACHINES AND THEIR ROLE IN ARCHITECTURAL DISCOURSE, WE SET OUT TO SEE WHAT WE COULD LEARN FROM RECONSTRUCTING THESE MACHINES.

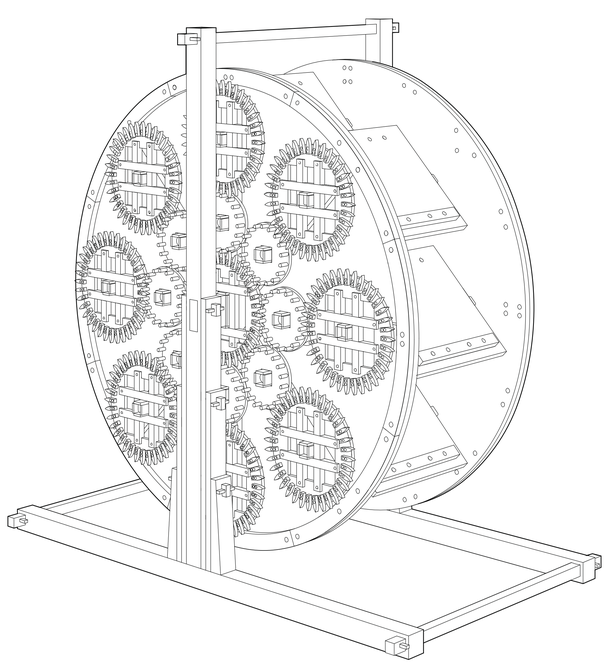
00DESCRIPTION

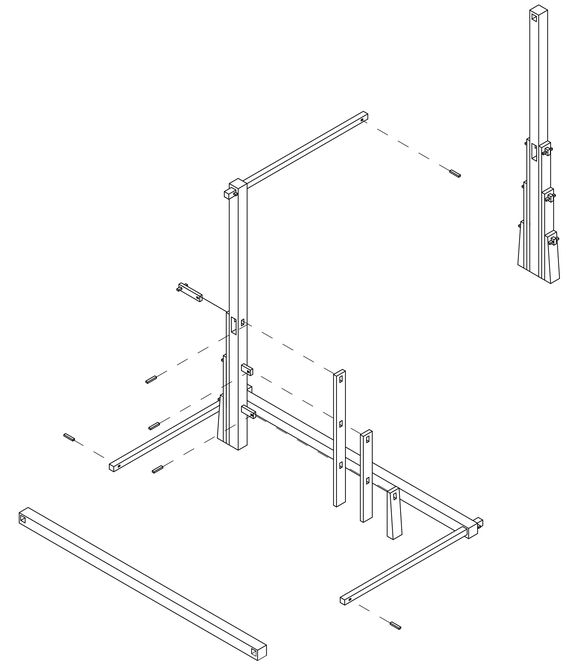
THIS PROJECT WAS INTIALLY LESS ABOUT THE SUBJECT MATTER, AND MORE ABOUT EXPLORING THE POTENTIAL FOR RECONSTRUCTING A LOST ARTIFACT TO SEE WHAT NEW INFORMATION CAN BE UNCOVERED THROUGH IT'S RECONSTRUCTION. SOFTWARE WAS EMPLOYED TO QUICKLY WORK THROUGH MODEL ITERATIONS TO CREATE A MODEL THAT WAS ACCURATELY PROPORTIONED TO IT'S PIECES. I WAS ABLE TO FIND PICTURES THAT WERE SHOT IN AN ELEVATIONAL STYLE, WHICH BECAME THE MOST HELPFUL WHEN TRYING TO DIMESION THE READING MACHINE.

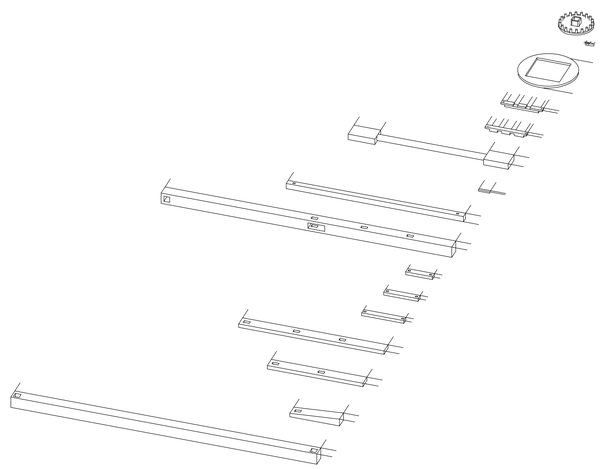
00TECHNIQUES

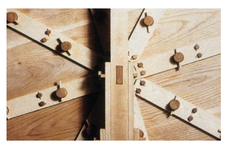
THE TECHNIQUES USED TO RECREATE THE READING MACHINE ARE DISCUSSED IN GREATER DEPTH IN THE INDIVIDUAL DESPRIPCTIONS BELOW. THE PROCESS OF RECONSTRUCTION WITHOUT CONSTRUCTION DOCUMENTS OR ACCURATE RECORDS IS AN IMPERFECT PROCESS, BUT ULTIMATELY WAS A FRUITFUL ONE. THE INFORMATION DISCOVERED HELPED INFORM US ON THE METHOD FOR THE CONSTRUCTION OF THE READING MACHINE.

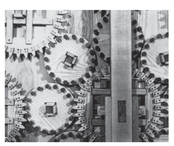


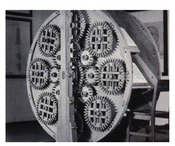












02 CROSS REFERENCE:

The first step in digitally reconstructing the Reading Machine was to build a strong documentation base to pull information from. Having a view of all the parts of the machine was crucial to building and understanding on how to begin to recreate it. Once I understood what a majority of the pieces of the machine were I was able to begin creating ratio systems to understand the proportions of the pieces of the Reading Machine in relationship to the size of one of the base members. It took multiple iterations of models to find the correct proportioning system.

03 SCALAR SYSTEMS:

I was fortunate to be able to find a picture of the Reading Machine with a chair in relationship to it. Chairs have a typical width and height dimension that gave me a range of possible dimensions for space between the two large wheels. Chairs have a average width of 24" to 18", which provided me with a base for which I could begin to dimension the overall width of the machine. The final model of the Reading Machine is thought to be accurate to a hundreth of an inch.

04 INFORMATION GATHERED:

The information I uncovered about the Reading Machine has informed me about the construction process, and the proprotioning systems of the machine. From the digital model, I pulled th pieces apart to get a list of parts and pieces that moves the research forward. All the pieces of the Reading Machine have a side or two sides with a dimension that is either, 3/4", 1 1/2", or 2 1/4". It's likely that this means that Reading Machine was constructed with dimensioned lumber, with the 2 1/4" pieces being ripped down from 2 1/2" pieces. This also suggests that proportion played a big role in the construction of the Reading Machine. Understanding the construction process is important to reconstructing a physical model of the machines, as well as understanding the theory behind the creation of the machines.